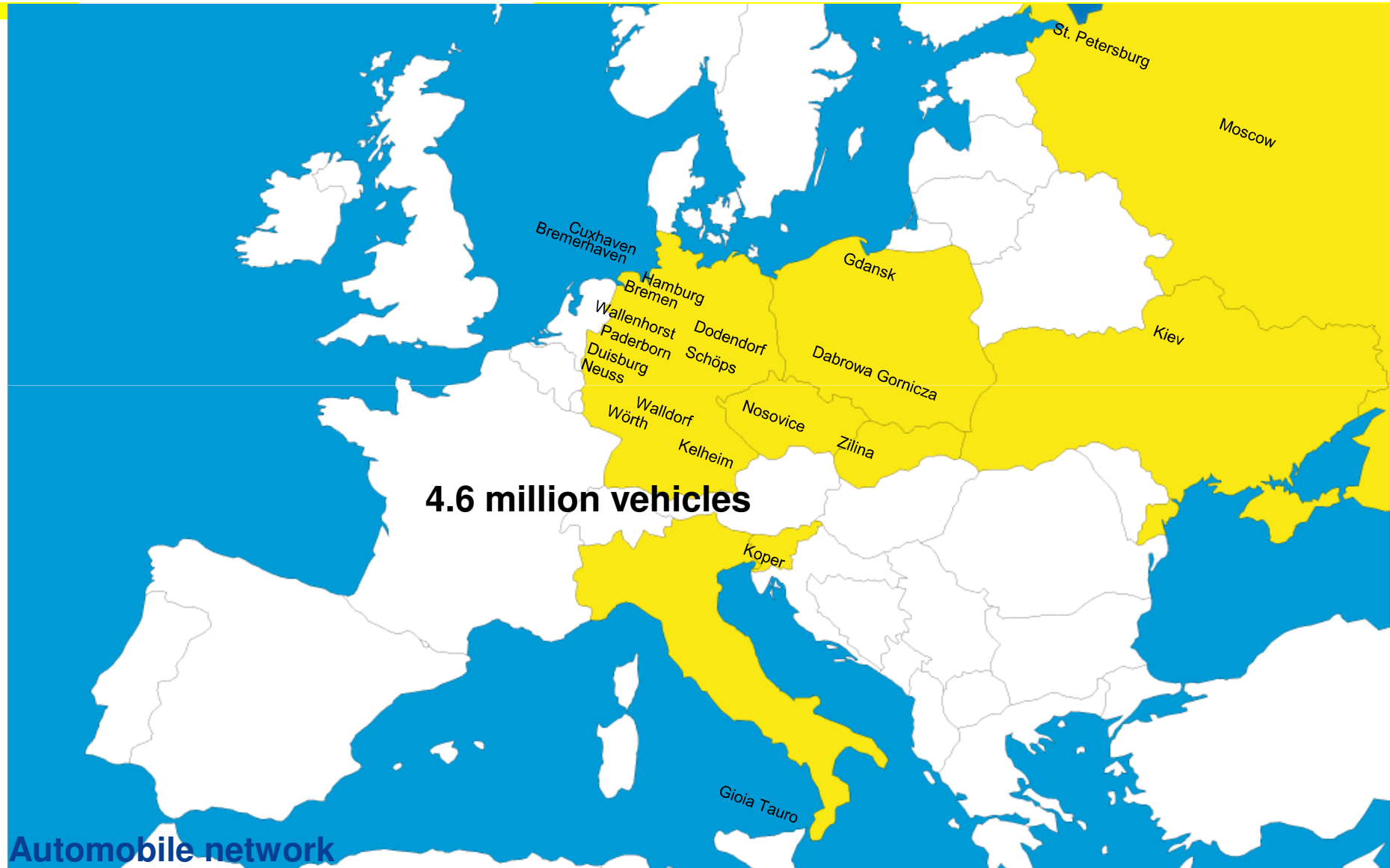




The long way to RFID

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Challenges:

- ✓ Complete and accurate information between all parties of the logistic chain
- ✓ Increasing demand on real time information
- ✓ Increasing automation of processes to trigger status information



Multiple Standards

Example 1

- ✓ 1995: 2 partner interfaces with 8 formats. 2 data transfers p. day
- ✓ 2010: 142 partner interfaces with 1680 formats. 3300 data transfers p. hour

All different!



Multiple Standards

Example 2

- ✓ 1995: 15 different barcode types
- ✓ 2010: 136 different barcode types

All different!



Today's methods:

- ✓ Barcode technology
- ✓ Variety of barcode types and contents
- ✓ Partly poor quality
- ✓ Not readable in bad weather conditions
- ✓ Unsuitable for a longer life cycle
- ✓ Manual processes necessary



Improvements with RFID ?

- ✓ Different frequencies
- ✓ Different data formats
- ✓ Different locations of the tag
- ✓ Different standards



RFID projects at BLG Automobile

- ✓ Cooperation with the Collaborative Research Centre 637 of the University of Bremen
 - ✓ Project eTS
- ✓ Project Autonomous Corporation Logistics Processes - A Paradigm Shift and its limitations
- ✓ Collaboration with national and international organizations
 - ✓ VDA, Odette, ECG
- ✓ German research initiative, Innovative Seaport Technologies (ISETEC II)
 - ✓ ProKOn, LogPro

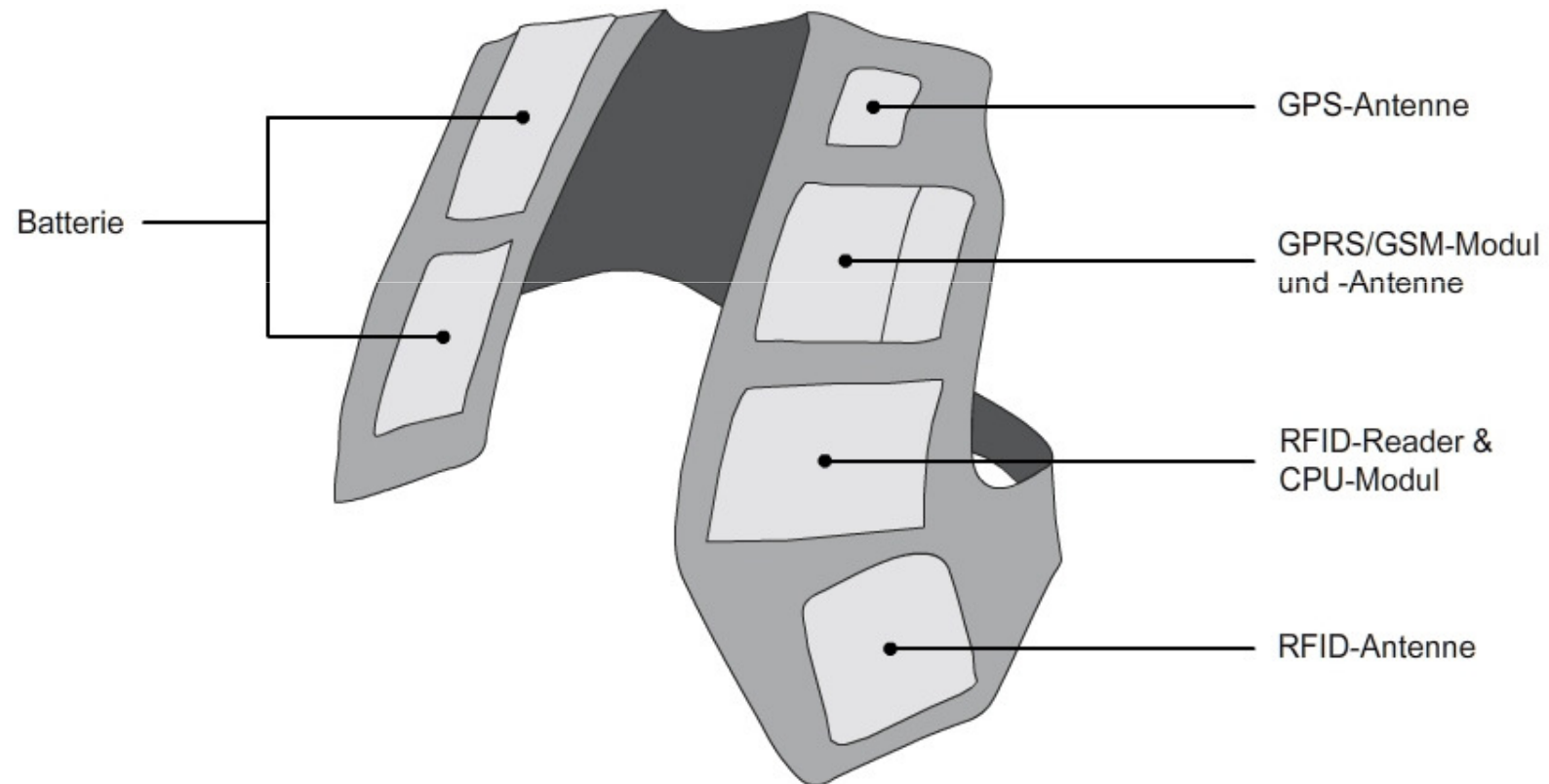


RFID projects at BLG Automobile - eTS





RFID projects at BLG Automobile - eTS





RFID projects at BLG Automobile - eTS





RFID projects at BLG Automobile - eTS

- ✓ Results:
 - ✓ Proof of functional wearable computing system
 - ✓ Proof of location of driver (inside or outside of vehicle)
 - ✓ Proof of accurate location of vehicle
 - ✓ Proof of realization of VDA 5520 and Odette recommendation RFID for Vehicle Distribution Processes
- ✓ Further development in project RAN possible



RFID projects at BLG Automobile - RAN

- ✓ RAN = RFID based Automotive Network
- ✓ Development of standardized order processes
- ✓ Efficient and real time information exchange with Infobroker